SANTA CRUZ BIOTECHNOLOGY, INC.

DOCK 180 (H-70): sc-5625

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The v-Crk oncogene product shares homologous amino acid sequences, designated Src homology region 2 (SH2) and SH3, with many molecules involved in signal transduction. The v-Crk cellular homolog, c-Crk, is a member of a newly emerging class of genes including Nck and GRB2/ASH which encode proteins that consist primarily of SH2 and SH3 domains. Two distinct human c-Crk cDNAs, designated Crk I and Crk II, have been identified and shown to represent alternative splice products of c-Crk. The major translational product of c-Crk I has been identified as a variably expressed protein, while c-Crk II encodes a widely expressed protein and a more variably expressed protein. The major c-Crk transforming activity appears associated with c-Crk I p28 expression. DOCK 180, a protein downstream of Crk, has been identified as a major Crk-associated protein. When DOCK 180 is recruited to the plasma membrane from a cytoplasmic reservoir, presumably by Crk, changes in cellular morphology and spindle formation occur, suggesting DOCK 180 to be a Crk effector molecule.

REFERENCES

1. Mayer, B.J. and Hanafusa, H. 1990. Association of the v-Crk oncogene product with phosphotyrosine-containing proteins and protein kinase activity. Proc. Natl. Acad. Sci. USA 87: 2638-2642.
2. Matsuda, M., et al. 1990. Binding of transforming protein, P47gag-Crk, to a broad range of phosphotyrosine-containing proteins. Science 248: 1537-1539.

CHROMOSOMAL LOCATION

Genetic locus: DOCK1 (human) mapping to 10q26.2.

SOURCE

DOCK 180 (H-70) is a rabbit polyclonal antibody raised against amino acids 1700-1769 of DOCK 180 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

DOCK 180 (H-70) is recommended for detection of DOCK 180 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DOCK 180 siRNA (h): sc-35207, DOCK 180 shRNA Plasmid (h): sc-35207-SH and DOCK 180 shRNA (h) Lentiviral Particles: sc-35207-V.

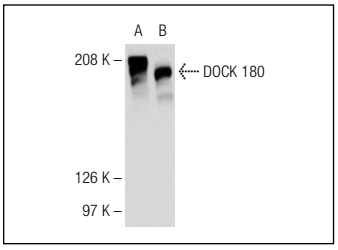
Molecular Weight of DOCK 180: 180 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or H4 cell lysate: sc-2408.

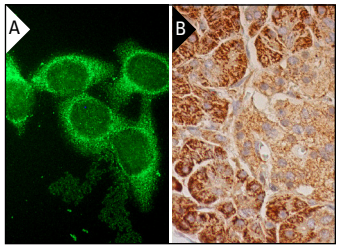
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



DOCK 180 (H-70): sc-5625. Western blot analysis of DOCK 180 expression in HeLa (**A**) and JAR (**B**) whole cell lysates.



DOCK 180 (H-70): sc-5625. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Brugnera, E., et al. 2002. Unconventional Rac-GEF activity is mediated through the DOCK 180-Elmo complex. Nat. Cell Biol. 4: 574-582.
2. Broome, A.M., et al. 2004. Microtubule-dependent redistribution of a cytoplasmic cornified envelope precursor. J. Invest. Dermatol. 122: 29-38.
3. Makino, Y., et al. 2006. Elmo1 inhibits ubiquitylation of Dock180. J. Cell Sci. 119: 923-932.
4. Katoh, N., et al. 2006. Effect of Serotonin on the differentiation of human monocytes into dendritic cells. Clin. Exp. Immunol. 146: 354-361.
5. Patel, M., et al. 2011. The Arf family GTPase Arl4A complexes with ELMO proteins to promote actin cytoskeleton remodeling and reveals a versatile Ras-binding domain in the ELMO proteins family. J. Biol. Chem. 286: 38969-38979.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.